

CLAIMS

I claim:

1. A positive-pressure packaging system comprising:
 - a platen for receiving a product and a packaging material having an open end;
 - a dome moveable to a first position relative to the platen wherein the product may be placed on the platen, and a second position relative to the platen wherein the product is substantially enclosed inside of a pressure chamber defined by the platen and the dome;
 - a seal assembly for operatively coupling the dome to the platen in the second position and for straitening the open end, wherein the seal assembly is adapted to allow expulsion of fluids from the pressure chamber; and
 - an pressure source operably coupled with the dome for increasing pressure within the dome so that the packaging material is compressed against the product.
2. The system of claim 1 further comprising a sealing device on at least one of the platen and the dome configured to seal the packaging material after the packaging material has been compressed.
3. The system of claim 2 wherein the sealing device includes a heating element configured to provide the package with a hermetic seal.
4. The system of claim 2 further comprising a gas inlet for injecting a gas into the packaging material to purge an interior of the packaging material before compressing the packaging material.
5. The system of claim 4 wherein the gas is selected from the group consisting of Ar, CO₂, or CO.

6. The system of claim 1 wherein the pressure source includes an air compressor operably coupled with the dome to provide pressurized air to the pressure chamber.
7. The system of claim 1 wherein the pressure source includes an expandable bladder configured to expand and exert pressure against the packaging material.
8. The system of claim 1 wherein the seal assembly is a labyrinth structure that allows passage of fluids and obstructs passage of particulates.
9. The packager of claim 1 wherein the packaging material includes multiple layers of a webbing.
10. A method of packaging a product, the method comprising:
providing a product in an open package on a support;
enclosing the product and the package on the support within a pressure chamber;
straitening an open end of the package to restrict flow of a liquid and inhibit passage of a particulate through the open end; and
increasing the pressure within the pressure chamber to expel the liquid from the package and compress the open package about the product.
11. The method of claim 10 wherein the straitening step includes corrugating the open end of the package.
12. The method of claim 10 further comprising sealing the package after the package is compressed about the product.
13. The method of claim 12 wherein the step of sealing the package includes heating the open end of the package with a heating element.

14. The method of claim 12 further comprising flushing at least a portion of the package with a gas prior to compressing the package.
15. The method of claim 14 wherein the step of flushing is performed after the open package is at least partially compressed about the product.
16. The method of claim 10 wherein the product is placed in the open package after the open package is positioned on the support.
17. The method of claim 16 wherein the product is a fresh meat product.
18. A positive-pressure packaging system comprising:
 - a platen having a substantially flat surface;
 - a pressure dome moveable between a first open position relative to the platen wherein the flat surface is exposed to ambient pressure, and a second closed position relative to the platen substantially sealing the dome against the platen to form a pressure chamber;
 - a seal assembly for corrugating an open end of a package located on the flat surface as the dome moves to the second closed position;
 - a pressure source operably coupled with the dome for increasing pressure within the pressure chamber relative to the ambient pressure so that the open package is compressed against the product, wherein the seal assembly allows expulsion of fluids from the package through the open end thereof and inhibits expulsion of a particulate; and
 - a sealing device on at least one of the platen and the dome configured to seal the package after the package has been compressed.
19. The system of claim 18 wherein the seal assembly includes a first labyrinth structure provided on the flat surface of the platen, and a second labyrinth structure provided on the pressure dome, the first and second labyrinth structures being engageable so as to form a closed seal that allows the passage of fluids under increased pressure.

20. The system of claim 19 wherein the sealing device includes a first heat-sealing component on the platen, and a second heat-sealing component on the pressure dome and positioned to substantially abut against the first heat-sealing component when the pressure dome is in the closed position.